

Attorney Docket No. 5515.214-US  
Serial No. 09/886,311  
Filed: June 21, 2001  
Inventors: Knudsen et al.  
Express Mail Label No.: EV 246880655 US

### **Amendments To The Claims**

The listing of claims will replace all prior versions, and listings, of the claims in the application.

### **Listing Of Claims:**

Claims 1-91 (Cancelled)

Claim 92 (Currently Amended) ~~An exendin~~ A derivative of an analogue of exendin-4 where said analogue ~~having~~ has an amino acid sequence that differs from the amino acid sequence of ~~exendin-3 or~~ exendin-4 by the substitution of up to ten amino acid residues with any  $\alpha$ -amino acid residue, and wherein said derivative ~~(a) has one or two lipophilic substituents are~~ substituent attached, ~~optionally via a spacer, to amino acid residues and (b) one of the lipophilic substituents is attached to an amino acid residue~~ of said analogue which is not the N-terminal or C-terminal amino acid residue of said analogue.

Claim 93 (Currently Amended) ~~An exendin~~ The derivative of claim 92, wherein said analogue ~~has~~ having an amino acid sequence that differs from the amino acid sequence of ~~exendin-3 or~~ exendin-4 by the substitution of up to six amino acid residues with any  $\alpha$ -amino acid residue.

Claims 94-95 (Cancelled)

Claim 96 (Currently Amended) ~~An exendin~~ The derivative of claim 94, wherein the lipophilic substituent has 4 to 40 carbon atoms.

Claim 97 (Currently Amended) ~~An exendin~~ The derivative of claim 96, wherein the lipophilic substituent has 8 to 25 carbon atoms.

Claim 98 (Currently Amended) ~~An exendin~~ The derivative of claim 96, wherein the lipophilic substituent is attached by means of a spacer.

Claim 99 (Currently Amended) ~~An exendin~~ The derivative of claim 98, wherein the spacer is an unbranched alkane  $\alpha,\omega$ -dicarboxylic acid group having from 1 to 7 methylene groups.

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Claims 100-103 (Cancelled)

Claim 104 (Currently Amended) ~~An-exendin~~ The derivative of claim 96, wherein the lipophilic substituent is a straight-chain or branched acyl group.

Claim 105 (Currently Amended) ~~An-exendin~~ The derivative of claim 104, wherein the acyl group is of the formula  $\text{CH}_3(\text{CH}_2)_n\text{CO}-$ , wherein n is 4 to 38.

Claim 106 (Currently Amended) ~~An-exendin~~ The derivative of claim 105, wherein the acyl group is  $\text{CH}_3(\text{CH}_2)_6\text{CO}-$ ,  $\text{CH}_3(\text{CH}_2)_8\text{CO}-$ ,  $\text{CH}_3(\text{CH}_2)_{10}\text{CO}-$ ,  $\text{CH}_3(\text{CH}_2)_{12}\text{CO}-$ ,  $\text{CH}_3(\text{CH}_2)_{14}\text{CO}-$ ,  $\text{CH}_3(\text{CH}_2)_{16}\text{CO}-$ ,  $\text{CH}_3(\text{CH}_2)_{18}\text{CO}-$ ,  $\text{CH}_3(\text{CH}_2)_{20}\text{CO}-$  or  $\text{CH}_3(\text{CH}_2)_{22}\text{CO}-$ .

Claims 107-120 (Cancelled)

Claim 121 (Currently Amended) ~~An-exendin~~ The derivative of claim 92, which is Arg<sup>33</sup>, Leu<sup>20</sup>, Gln<sup>34</sup>, Lys<sup>18</sup> ( $\text{N}^\epsilon-(\gamma\text{-aminobutyryl}(\text{N}^\alpha\text{-hexadecanoyl}))$ ) Exendin-4-(7-45)-NH<sub>2</sub>.

Claim 122 (Currently Amended) A pharmaceutical composition comprising ~~an-exendin~~ a derivative of claim 92 and a pharmaceutically acceptable vehicle or carrier.

Claim 123 (Currently Amended) A method of treating insulin dependent or non-insulin dependent diabetes mellitus in a patient in need of such a treatment, comprising administering to the patient a therapeutically effective amount of a ~~exendin~~ derivative of claim 92 and a pharmaceutically acceptable carrier.

Claim 124 (New) The derivative of claim 93, wherein said analogue has an addition of up to six amino acids at the C-terminus of exendin-4.

Claim 125 (New) The derivative of claim 124, wherein the lipophilic substituent has 8 to 25 carbon atoms.

Claim 126 (New) The derivative of claim 125, wherein the lipophilic substituent has 12 to 18 carbon atoms.

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Claim 127 (New) The derivative of claim 93, wherein said analogue has an amino acid sequence that differs from the amino acid sequence of exendin-4 by the substitution of up to four amino acid residues with any  $\alpha$ -amino acid residue.

Claim 128 (New) The derivative of claim 127, wherein the lipophilic substituent has 8 to 25 carbon atoms.

Claim 129 (New) The derivative of claim 128, wherein the lipophilic substituent has 12 to 18 carbon atoms.

Claim 130 (New) A pharmaceutical composition comprising a derivative of claim 93 and a pharmaceutically acceptable vehicle or carrier.

Claim 131 (New) A method of treating insulin dependent or non-insulin dependent diabetes mellitus in a patient in need of such a treatment, comprising administering to the patient a therapeutically effective amount of a derivative of claim 93 and a pharmaceutically acceptable carrier.

Claim 132 (New) A pharmaceutical composition comprising a derivative of claim 124 and a pharmaceutically acceptable vehicle or carrier.

Claim 133 (New) A method of treating insulin dependent or non-insulin dependent diabetes mellitus in a patient in need of such a treatment, comprising administering to the patient a therapeutically effective amount of a derivative of claim 124 and a pharmaceutically acceptable carrier.

Claim 134 (New) A pharmaceutical composition comprising a derivative of claim 127 and a pharmaceutically acceptable vehicle or carrier.

Claim 135 (New) A method of treating insulin dependent or non-insulin dependent diabetes mellitus in a patient in need of such a treatment, comprising administering to the patient a

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therapeutically effective amount of a derivative of claim 127 and a pharmaceutically acceptable carrier.